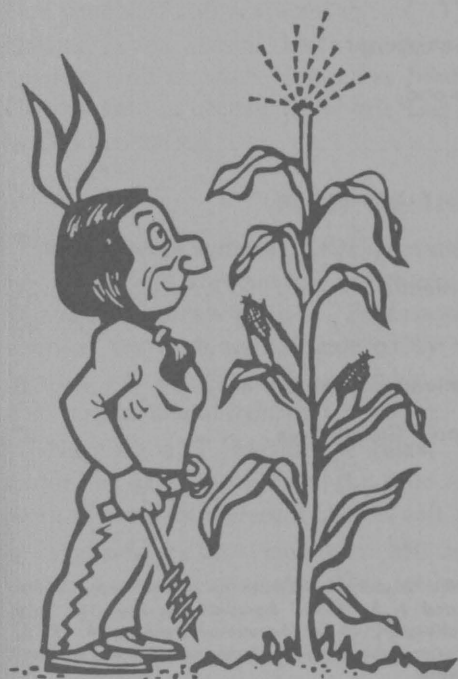


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1967-1969 PERFORMANCE OF CORN HYBRIDS IN ILLINOIS



By D. W. Graffis, G. L. Ross,
and J. E. Dillon

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Urbana, Illinois

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PERFORMANCE OF CORN HYBRIDS IN ILLINOIS, 1967-1969

CORN YIELDS IN ILLINOIS in 1969 are expected to average 97 bushels per acre, three bushels less than the record set in 1967. An erratic weather pattern over the state resulted in a myriad of difficulties. Late spring rains in northern, southern, and western areas of the state interfered with fertilizer applications, and prevented timely cultivation for weed control. East Central Illinois had a dry season. The deep, fertile soils of this region have a great capacity to hold water and carried the corn crop through with little or no yield reduction.

There were occasional fields that had poor pollination. The corn ears produced had scattered grains. The exact cause for the poor pollination is not known, however extra high populations causing light, nutrient, and moisture stress has been attributed the major influence. Greater care is needed when selecting hybrids for tolerance to the intended population.

PLAN OF THE TESTS

Selection of entries. Each year all producers of hybrid seed corn in Illinois and surrounding states are invited to enter hybrids in the Illinois performance trials. To finance this testing program, a fee is charged for each hybrid entered by seed companies. Most of these hybrids are commercially available, but seed companies occasionally enter experimental hybrids for testing.

Number and location of tests. In 1969, 18 major tests were carried on at 11 locations in the state (see map on page 7). These sites were chosen to represent major soil and climatic areas of the state.

Hybrids. This year over 350 hybrids were tested, including entries from 43 companies. The seed companies supplied seed of their entries.

Field-plot design. Each test was set up in either randomized complete block or lattice designs. These arrangements are practical and efficient and give each hybrid an equal chance to show its merits.

Planting methods. All trials were planted by machine except those at Woodstock and Augusta, which were planted by hand to obtain an earlier planting. All test fields except those at DeKalb, Elwood, Stanford, Urbana, Brownstown, and Carbondale were part of larger

corn fields and were surrounded by farmers' corn. Plots were kept small to avoid differences due to soil variation. Each individual plot was three rows, 26 feet long. The center row of each plot was harvested to check performance. All plots were overplanted 30 percent and later thinned to desired stand.

Fertilization. In general, all test fields were at a high level of fertility. Additional fertilizer was plowed down or side-dressed as needed to assure top yields.

Method of harvest. All plots were harvested mechanically with a self-propelled corn-head combine. Shelled corn from each plot was collected, weighed, and tested for moisture percentage. No allowance was made for shelled corn that might have been lost in harvest.

MEASURING PERFORMANCE

Two- and three-year summaries are presented in this circular. At least two-years' data are needed to properly judge performance. The hybrids are listed in each table in order of their average grain moisture at harvest. This arrangement is intended to reduce the emphasis often placed on yield alone and to call attention to the importance of proper maturity. It sometimes happens that hybrids too late in maturity for

Table 1. — General Information: Illinois Hybrid Corn Tests, 1969

Field, county, location, and number of entries	Date planted	Date harvested	Aver. acre yield	Moisture in grain	Erect plants	Aver. popula- tion
40-inch rows, 18,000 plants per acre			<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	
Woodstock: McHenry, Ex. N, 49.....	May 15	Nov. 10	123	25.8	99	18,000
Augusta: Hancock, WC, 42.....	June 11	Nov. 13	100	26.3	90	18,000
Urbana: Champaign, EC, 72.....	May 6	Oct. 20	155	23.6	97	17,997
Brownstown: Fayette, S, 42.....	May 6	Oct. 3	115	20.9	71	18,000
30-inch rows, 18,000 plants per acre						
DeKalb: DeKalb, N, 56.....	May 16	Nov. 6	118	27.8	100	17,936
Greenfield: Macoupin, WSC, 49.....	May 7	Oct. 24	159	16.2	75	17,932
Carbondale: Jackson, Ex. S, 36.....	May 13	Sept. 31	65	19.1	58	17,986
Dixon Springs: Pope, Ex. S, 42.....	May 14	Oct. 8	143	15.2	76	17,964
30-inch rows, 22,000 plants per acre						
Brownstown: Fayette, S, 42.....	May 6	Oct. 3	131	20.9	67	21,820
Carbondale: Jackson, Ex. S, 36.....	May 13	Sept. 31	80	18.6	71	21,377
30-inch rows, 24,000 plants per acre						
DeKalb: DeKalb, N, 81.....	May 16	Oct. 29	136	27.6	91	23,682
Elwood: Will, ENC, 56.....	May 21	Nov. 11	121	23.4	89	23,476
Stanford: McLean, C, 64.....	May 6	Oct. 23	187	19.2	90	23,690
Urbana: Champaign, EC, 100.....	May 1	Oct. 6	146	23.3	93	23,920
Greenfield: Macoupin, WSC, 56.....	May 7	Oct. 25	156	16.7	72	23,722
Dixon Springs: Pope, Ex. S, 49.....	May 14	Oct. 8	149	14.9	84	23,122
28-inch rows, 18,000 plants per acre						
Galesburg: Knox, WNC, 64.....	April 29	Oct. 21	163	20.0	93	17,885
28-inch rows, 24,000 plants per acre						
Galesburg: Knox, WNC, 90.....	April 29	Oct. 22	177	18.7	93	23,598

a given area are entered in the tests. While such hybrids often are high in yield, their high moisture content might make them unsafe choices for use unless proper drying or storage facilities are available.

Yield of grain. Shelled-corn weight and moisture percentage were measured for each plot of a hybrid and converted to yields of No. 2 shelled corn (15.5 percent moisture). An electronic moisture tester was used for all moisture readings.

Erect plants. The number of erect plants in each plot of a hybrid was counted at harvest time. Any plant leaning at an angle of more than 45 degrees or broken below the ear was considered lodged. Plants broken above the ear were considered erect.

Stand. In late June, plants in all plots on all fields were counted and the percent of stand was computed by comparing this number with the number of kernels planted. Plots with over 100 percent stand were thinned at this time. Stand differences may be caused by failure to germinate or by disease, insect injury, or cultivation damage.

Plants per acre. Plants per acre was calculated for each plot by using the percent stand obtained from plant counts. Differences in plants per acre are caused by the same factors that cause differences in percent stand.

Comparing hybrids. In any test of plant material, it is impossible to measure performance exactly. Samples may vary, soils may not be uniform, and many other conditions may produce variability. **Results of repeated tests, like those reported in this circular, are more reliable than those of a single year or a single strip test.** In general, a yield difference of a few bushels per acre is not significant in these tests. When one hybrid consistently outyields another at several test locations and over several years of testing, the chances are good that this difference is *real* and should be a consideration in choosing a hybrid. But yield alone is not enough. Consider also the grain moisture content, percentage of erect plants, percent stand, or plants per acre in comparing hybrids.

As an aid to comparing hybrids, certain statistical tests have been devised. D. B. Duncan¹ has outlined an approach to the problem of multiple comparisons when only two means are compared among a set of hybrid means. Certain factors not accounted for in previous tests of this type are included in Bayes L.S.D. This test is applied in the same manner as previous statistical tests used in these circulars. When two

¹Duncan, D. B., "A Bayesian Approach to Multiple Comparisons," *Technometrics*, 7:171-222, 1965.

hybrids in a trial are compared, and the difference between them is greater than the tabulated L.S.D. value, then the hybrids are said to be "significantly different."

GROWING CONDITIONS ON 1969 TEST FIELDS

Extreme Northern Illinois: Woodstock. This test field represents the cool, humid area in northeastern Illinois. The test plot is on land operated by the Hughes Farms and Seed Co. The soil type is Proctor silt loam, a fertile, deep, well-drained, dark prairie soil. This plot was in a field of second-year corn.

Northern Illinois: DeKalb. This test is on the University's Northern Illinois Research Center near Shabbona in DeKalb County. R. E. Bell is field manager of the research center. The soil type is Flanagan silt loam, a dark-brown, adequately drained soil of high fertility. The rotation used is a corn-corn-oats-clover rotation. The high planting rate test was in first-year corn. The low planting rate was in second-year corn. The field was wet and cold at planting time and high-population stands were reduced on some of the hybrids.

West North-Central Illinois: Galesburg. This test is located on the Hawkinson Farms, operated by Harold and Dave Hawkinson. The test field represents the highly fertile, heavy-textured, Sable silty clay loam of the area. The plot was in a field of fifth-year corn. Cold, wet weather in early May reduced some of the high-population stands but ideal conditions later in the growing season resulted in very good yields.

East North-Central Illinois: Elwood. This plot was moved from the Ashkum area to the Elwood Research Center just before planting season so a number of the hybrids that were entered in this trial may be higher in moisture than they normally would have been had the plot remained in the Ashkum area. The Elwood field is in Will County and Dale Harshbarger is field manager. The soil is a Drummer silty clay loam.

West-Central Illinois: Augusta. This test is located on the William Finney farm, west of Augusta in Hancock County. The soil is Harrison silt loam, a moderately well-drained, dark grayish-brown prairie soil. The area was wet all spring causing a delay in planting. Adequate rainfall throughout the growing season resulted in good corn yields in spite of the June planting.

Central Illinois: Stanford. During the past three years, this

field has been located on a farm operated by Howard Logsdon in the western part of McLean County. The soil is a deep, well-drained, fertile Muscatine silt loam. This area had almost ideal growing conditions in 1969 and excellent corn yields were obtained.

East-Central Illinois: Urbana. This test is located on the Agronomy South Farm of the University of Illinois at Urbana in Champaign County. M. G. Oldham is the farm manager. Fields on which the test plots were grown are level, heavy-textured Drummer silty clay loam. The conventional 40-inch trial and 30-inch trial were in the first year of corn of a corn-corn-oats-alfalfa rotation.

West South-Central Illinois: Greenfield. This test represents the moderately poorly drained, level soils of western south-central Illinois. The soil type is Herrick silt loam. It is located on the C. H. Ross, Jr. farm northeast of Greenfield in Macoupin County. A dry cloddy seedbed reduced some high population stands and reduced maximum yields of an above average growing season.

Southern Illinois: Brownstown. This test is located on the University's Brownstown Experiment Field in Fayette County. The soil is Cisne silt loam, a poorly drained, gray prairie soil with a well-developed claypan. Natural fertility of the soil is not high, but good fertilization practices and crop rotations have brought the yielding capacity of the field up to a moderately high level. P. E. Johnson was farm manager. He has since retired.

Extreme Southern Illinois Bottomland: Dixon Springs. This test was located at the Dixon Springs Agricultural Center in Pope County. The test plot is on an area of Sharon silt loam, which is a

Table 2. — Growing Season Rainfall

Field	May	June	July	August
	<i>inches</i>			
Woodstock.....	2.82	9.18	3.60	.46
DeKalb.....	3.38	5.79	1.00	.95
Galesburg.....	4.51	4.74	7.23	3.87
Elwood.....	3.74	6.27	6.32	.50
Augusta.....	4.61	5.06	8.80	.57
Stanford.....	1.77	1.74	2.60	2.96
Urbana.....	1.47	1.85	1.68	2.90
Greenfield.....	1.67	4.24	6.77	.86
Brownstown.....	3.19	4.05	4.98	1.60
Carbondale.....	2.96	5.39	2.82	0.00
Dixon Springs.....	2.81	9.10	2.81	2.22

light-colored moderately well-drained to well-drained, medium-textured bottomland soil. Fertility of this field is high. G. E. McKibben is cooperating agronomist. The yields on this field were very good although the corn was under water for a few days during the growing season.

Extreme Southern Illinois Upland: Carbondale. Since the Dixon Springs test is conducted on bottomland, a test at Carbondale has been included to represent a typical upland area in southern Illinois. This test was carried on at the Southern Illinois University and University of Illinois Agronomy Research Center, where Roy Brown-ing is superintendent. The soil types are classified as Weir and Stoy silt loams, which are rather shallow, silty soils over claypan. Very heavy rains following corn emergence eroded the loose topsoil of the field and poor stands were evident in the high population trial. Otherwise it was about a normal growing season for that area.

SOURCES OF SEED

ACCO Seed	Anderson-Clayton	Belmond, Iowa
Ainsworth Hybrids	Ainsworth Seed Co.	Mason City
ASGROW Hybrids	ASGROW Seed Co.	4244 Clinton Ave., Des Moines, Iowa
Bear Hybrids	Bear Hybrid Corn Co.	Box 628, Decatur
Blaney Hybrids	Blaney Farm, Inc.	R. R. 3, Madison, Wis.
Bo-Jac Hybrids	Bo-Jac Hybrid Corn Co.	Mt. Pulaski
Burgdorf's Hybrids	Burgdorf's Seed Co.	5101 W. Broadway, Evansville, Ind.
C.I. Seed	Central Illinois Seed Inc.	R. R. 6, Springfield
Cornelius Hybrids	Cornelius Seed Corn Co.	Bellevue, Iowa
Corn King Hybrids	Malcolm H. Grieve	Pierson, Iowa
Dittmer Hybrids	Dittmer Seeds	Carthage
Dockendorff Hybrids	Max Dockendorff	Danville, Iowa
Excel Hybrids	Excel Seed Co.	Plainview, Texas
Farmers Union Hybrids	Farmers Union Seed Co.	Cedar Falls, Iowa
Frey Hybrids	Frey Hybrid Corn Co., Inc.	Gilman
Gutwein Hybrids	Fred Gutwein & Sons	Francesville, Ind.
Hoblit Hybrids	Hoblit Seed Co.	Atlanta
Holden Hybrids	Holden Foundation Hybrids	Williamsburg, Iowa
Hughes Hybrids	Hughes Hybrids, Inc.	Woodstock
Lewis Hybrids	Frank W. Lewis & Son Seed Farms	Ursa
McAllister Hybrids	McAllister Seed Farms	Mount Pleasant, Iowa
Migro Hybrids	Midwest Seed Growers Assn., Inc.	Mitchell, Ind.
Moews Hybrids	Moews Seed Co.	Granville
Northrup-King Hybrids	Northrup, King & Co.	1500 Jackson St., N.E. Minne- apolis, Minn.
Null Hybrids	Null Seed Farms	R. R. 1, Colchester

Pioneer Hybrids.....	Pioneer Hi-Bred Corn Co. of Illinois.....	Princeton
Pocklington Hybrids.....	Pocklington Bros.....	R. R. 2, Girard
Prairie Stream Hybrids.....	Prairie Stream Farm, Inc.....	Frankfort, Ind.
Princeton Hybrids.....	Princeton Farms.....	Box 319, Princeton, Ind.
Schenk's Hybrids.....	Charles H. Schenk & Sons, Inc.....	Vincennes, Ind.
Sieben Hybrids.....	Sieben Hybrids.....	Geneseo
Stewart Hybrids.....	Stewart Hybrids Inc.....	Princeville
Stone Hybrids.....	Stone Seed Co.....	Pleasant Plains
Stull Hybrids.....	Stull Brothers, Inc.....	Sebree, Ky.
Super-Crost Hybrids.....	Edw. J. Funk & Sons.....	Kentland, Ind.
Taylor-Evans Hybrids.....	Taylor-Evans Seed Co.....	Tulia, Texas
Todd Hybrids.....	Todd Hybrid Corn Co.....	Burlington, Ind.
Tracy Hybrids.....	Tracy Seed Farms.....	R. R. 1, Janesville, Wis.
Trisler Hybrids.....	Trisler Seed Co.....	Fairmount
Van Horn Hybrids.....	Van Horn Hybrids, Inc.....	Cerro Gordo
Victor Hybrids.....	Polo Seed Co.....	Polo
Whisnand Hybrids.....	Whisnand Hybrid Corn Co.....	R. R. 3, Arcola



Location of 1969 test fields.

Table 3. — Extreme Northern Illinois: Woodstock
(Planted at 18,000 plants per acre in 40-inch rows)

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
PIONEER 3773.....	115	26.0	95	18000
HUGHES SLX20.....	109	28.1	94	18000
CORNELIUS C-36SX.....	115	28.2	96	17900
MOEWS SUPR MAIZ 327.....	115	28.5	93	17800
NORTHROP-KING PX50.....	116	28.8	91	17800
PIONEER 3567.....	117	32.0	97	17800
PIONEER 3519.....	118	33.8	97	17900
AV. OF ALL ENTRIES 1967-1969..	107	29.5	96	17641
L.S.D.....	N.S.	1.9	N.S.	N.S.
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
CORNELIUS 333X.....	119	24.5	94	17800
MOEWS SM229 (2281).....	123	25.2	98	18000
PIONEER 3773.....	126	25.5	98	17900
MOEWS SM239 (3339).....	106	25.6	94	17900
CORN KING 1122.....	127	25.7	97	18000
HUGHES SLX20.....	116	25.7	96	17900
NORTHROP-KING PX50.....	126	26.1	96	17900
HUGHES SLX18.....	114	26.1	99	17700
CORNELIUS C-36SX.....	117	26.5	98	18000
MOEWS SUPR MAIZ 327.....	123	26.6	97	17800
NORTHROP-KING PX580.....	123	26.7	97	17900
NORTHROP-KING PX47.....	129	26.8	97	17700
PIONEER 3561.....	107	28.0	97	18000
PIONEER 3570.....	125	28.1	99	18000
PIONEER 3567.....	130	28.8	100	17900
PIONEER 3519.....	132	31.8	98	18000
AV. OF ALL ENTRIES 1968-1969..	118	26.9	97	17877
L.S.D.....	11	1.5	6	N.S.

Table 4. — Northern Illinois: DeKalb
(Planted at 18,000 plants per acre in 30-inch rows)*

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
HOLDEN 013.....	129	27.4	94	18000
BLANEY DOUBLE A.....	124	28.0	96	17500
CORNELIUS 373X.....	120	28.2	97	17200
BLANEY B-601.....	124	29.4	98	17700
FARMERS UNION SX55A.....	124	29.6	96	18000
MIGRO M540.....	126	30.2	95	17300
PIONEER 3548 (X2193).....	134	30.3	97	17300
NORTHROP-KING PX50.....	119	30.4	96	17900
MC ALLISTER SX66.....	123	30.6	98	18000
MC ALLISTER TX303.....	116	30.7	97	18000
MOEWS SUPR MAIZ 327.....	122	31.0	96	17600
PIONEER 3567.....	121	32.8	96	16300
PIONEER 3376 (X1002).....	127	33.9	97	17300
ACCO UNI-CROSS 6000.....	117	35.3	94	17500
AV. OF ALL ENTRIES 1967-1969..	115	30.4	95	17239
L.S.D.....	14	2.4	N.S.	N.S.
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
NORTHROP-KING PX580.....	132	25.1	96	17400
FARMERS UNION SX55A.....	132	25.3	95	18000
BLANEY DOUBLE A.....	130	25.3	95	17600
CORNELIUS 373X.....	121	25.6	96	16800
HOLDEN 013.....	134	25.8	93	18000
MOEWS SM239 (3339).....	122	25.8	97	18000
NORTHROP-KING PX47.....	127	26.1	94	17800
PIONEER 3505.....	130	26.4	93	18000
BLANEY B-601.....	136	26.6	98	18000
NORTHROP-KING PX50.....	130	26.8	96	17700
PIONEER 3548 (X2193).....	147	27.0	97	17400
PIONEER 3570.....	124	27.2	99	16700
SIEBEN 51-SX.....	121	27.5	99	17100
MC ALLISTER TX303.....	120	27.6	96	18000
MIGRO M540.....	133	27.7	94	17900
ACCO UNI-CROSS 3600.....	134	28.0	96	17700
PIONEER X2066.....	133	28.1	100	17800
PIONEER 3567.....	134	29.1	95	18000
MC ALLISTER SX66.....	129	29.1	97	18000
MOEWS SUPR MAIZ 327.....	124	30.7	95	18000
PIONEER 3365.....	117	31.8	98	16600
PIONEER 3376 (X1002).....	139	31.9	96	18000
ACCO UNI-CROSS 6000.....	123	33.5	92	17400
AV. OF ALL ENTRIES 1968-1969..	122	27.6	94	17568
L.S.D.....	15	2.8	N.S.	N.S.

* Planted in 40-inch rows in 1967 and 1968.

Table 4a. — Northern Illinois: DeKalb, Increased Planting Rate
(Planted at 24,000 plants per acre in 30-inch rows)

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
HOLDEN 001	151	26.3	97	23400
HUGHES SLX317.....	127	26.3	91	23900
HUGHES SLX20.....	144	26.9	91	23800
FARMERS UNION SX55A.....	143	27.0	92	24000
BLANEY B-601.....	141	27.0	93	23900
TODD M55.....	127	27.3	96	24000
BLANEY DOUBLE A.....	141	27.6	90	23900
PIONEER X2066.....	138	28.0	96	24000
MC ALLISTER TX303.....	129	28.1	86	23600
BO-JAC X2E.....	142	28.3	93	23900
CORNELIUS C-365X.....	133	28.4	89	23800
NORTHROP-KING PX50.....	146	28.6	92	23700
MOEWS SUPR MAIZ 327.....	131	28.6	88	24000
BO-JAC X30E.....	134	29.2	87	23700
MC ALLISTER SX66.....	144	30.7	93	24000
PIONEER 3567.....	146	30.8	88	24000
ACCO UNI-CROSS 3600.....	138	31.5	92	23900
AV. OF ALL ENTRIES 1967-1969..	127	26.2	91	23656
L.S.D.....	15	1.9	N.S.	N.S.

Table 4a. — DeKalb, Increased Planting Rate, continued

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
BLANEY B-401.....	139	21.4	94	23800
GUTWEIN 19.....	117	22.2	96	22900
HUGHES SLX20.....	150	23.7	93	23700
MOEWS 3381.....	144	23.7	92	23700
HOLDEN 001.....	159	23.9	97	24000
BLANEY B-601.....	142	24.4	92	23800
FARMERS UNION SX55A.....	147	24.5	91	24000
SUPER-CROST S-27.....	143	24.6	90	23400
SUPER-CROST S-33.....	130	24.8	96	23600
TRACY 206 SX.....	142	25.1	93	23600
BLANEY DOUBLE A.....	142	25.2	88	24000
HUGHES SLX317.....	120	25.6	91	23800
NORTHROP-KING PX50.....	151	26.0	92	24000
CORNELIUS C-36SX.....	132	26.4	87	23800
MC ALLISTER TX303.....	126	26.5	86	24000
PIONEER X2066.....	151	26.6	95	24000
BO-JAC X2E.....	135	26.6	94	23800
TODD M55.....	124	26.6	96	24000
BO-JAC X30E.....	140	26.8	90	23600
ACCO U-530.....	138	26.9	88	24000
PIONEER 3560.....	133	27.0	93	23700
MOEWS SUPR MAIZ 327.....	126	27.2	85	24000
PIONEER 3570.....	142	27.3	95	23600
SIEBEN 51-SX.....	152	27.5	95	24000
SUPER-CROST 593.....	147	28.3	92	24000
PIONEER 3561.....	134	28.4	92	23300
BO-JAC X4 (X44).....	122	28.4	94	23200
MC ALLISTER SX66.....	153	28.6	93	23900
POCKLINGTON P-442.....	147	28.7	96	23900
CORNELIUS 373X.....	139	28.7	94	23900
ACCO UNI-CROSS 5200.....	137	28.9	90	23400
PIONEER 3567.....	153	29.0	92	24000
PIONEER 3365.....	138	29.2	90	23900
POCKLINGTON P-692.....	133	30.1	96	23400
ACCO UNI-CROSS 3600.....	148	30.2	93	24000
PIONEER 3505.....	120	30.7	92	24000
POCKLINGTON P-440.....	115	34.9	90	23700
AV. OF ALL ENTRIES 1968-1969..	133	26.4	92	23678
L.S.D.....	15	2.6	N.S.	N.S.

Table 5. — West North-Central Illinois: Galesburg
(Planted at 18,000 plants per acre in 28-inch rows)*

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
=====				
SUMMARY 1967-1969				

	BU.	PERCT.	PERCT.	
PIONEER 3505.....	141	21.2	96	17700
PIONEER 3376 (X1002).....	162	23.1	97	18000
HOBLIT XR-446.....	154	23.2	94	18000
WHISNAND 874.....	143	23.5	92	18000
PIONEER X1319.....	156	24.2	98	18000
PIONEER 3306.....	148	24.3	95	17900
PIONEER 3304.....	149	24.7	97	18000
IOWA-MISSOURI SX17.....	159	25.3	98	18000
MC ALLISTER SX300.....	150	25.4	97	17700
CORN KING 1155.....	145	25.9	96	18000
ASGROW IXL9 (5S570).....	159	26.3	98	17700
AV. OF ALL ENTRIES 1967-1969..	142	23.9	93	17829
L.S.D.....	16	1.0	N.S.	N.S.

SUMMARY 1968-1969				

	BU.	PERCT.	PERCT.	
PIONEER 3505.....	143	19.2	95	18000
NORTHROP-KING PX50.....	130	19.3	92	17800
PIONEER 3365.....	135	20.6	93	18000
PIONEER 3376 (X1002).....	166	21.4	97	18000
MOEWS 5281.....	139	21.5	91	17700
HOBLIT XR-446.....	158	21.9	93	18000
ILL. ALEXHO 748 X R802A.....	157	21.9	93	17500
WHISNAND 874.....	138	22.0	90	18000
PIONEER 3304.....	143	22.4	95	18000
PIONEER 3306.....	157	22.6	94	17900
BEAR UNICORN X6949.....	154	22.8	91	16700
PIONEER X1319.....	147	22.9	97	18000
AINSWORTH 6507.....	163	23.1	90	17600
BEAR UNICORN X8236.....	151	23.2	88	18000
BEAR UNICORN X872.....	171	23.8	97	17800
MOEWS 7291.....	148	23.9	90	18000
IOWA-MISSOURI SX17.....	157	24.0	97	18000
CORN KING 1155.....	137	24.4	95	18000
MC ALLISTER SX6827.....	154	24.7	93	17500
ACCO 933.....	139	24.7	86	18000
MOEWS 7281.....	159	24.9	93	17900
MC ALLISTER SX300.....	149	24.9	96	17500
ASGROW IXL9 (5S570).....	153	25.5	96	18000
AV. OF ALL ENTRIES 1968-1969..	142	22.4	92	17814
L.S.D.....	18	1.2	7	780

* Planted in 38-inch rows in 1967 and 1968.

Table 5a. — West North-Central Illinois: Galesburg,
Increased Planting Rate
(Planted at 24,000 plants per acre in 28-inch rows)*

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
DOCKENDORFF D12.....	161	21.0	95	24000
NORTHROP-KING PX50.....	155	21.5	90	23600
MC ALLISTER SX66.....	160	22.1	94	23200
PIONEER 3505.....	149	22.1	92	23700
MIGRO M540.....	146	22.6	90	23600
DOCKENDORFF 307.....	158	22.7	95	23800
BEAR UNICORN X4153.....	154	22.8	91	23800
PIONEER 3376 (X1002).....	166	23.2	97	23900
BO-JAC X20.....	155	23.3	94	23900
PIONEER 3206.....	143	23.4	92	23900
PIONEER 3306.....	143	23.7	96	23800
MIGRO M44SX.....	157	23.9	96	24000
BO-JAC X2.....	157	23.9	93	23600
PIONEER 3300.....	153	24.3	93	23200
WHISNAND 874.....	152	24.3	87	24000
PIONEER X1319.....	158	24.7	97	23500
AV. OF ALL ENTRIES 1967-1969..	148	23.3	92	23789
L.S.D.....	16	1.2	6	N.S.

Table 5a. — Galesburg, Increased Planting Rate, continued

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
LEWIS X16.....	150	17.8	93	23800
DOCKENDORFF D12.....	158	18.8	92	24000
BLANEY B-601.....	149	18.8	91	23200
NORTHROP-KING PX50.....	156	19.1	94	23700
BLANEY DOUBLE A.....	136	19.2	92	24000
MC ALLISTER SX6832.....	153	19.6	88	23800
MC ALLISTER SX66.....	158	19.8	93	23400
PIONEER 3505.....	146	20.1	89	23500
SIEBEN 51-SX.....	146	20.1	93	24000
MOEWS 6391.....	166	20.5	92	24000
MC ALLISTER SX6841.....	156	20.6	91	23700
SUPER-CROST 593.....	151	20.6	94	23900
BEAR UNICORN X4153.....	151	20.6	90	23700
POCKLINGTON P-442.....	142	20.7	89	23000
MC ALLISTER TX-747.....	156	21.1	92	23900
DOCKENDORFF 307.....	152	21.1	93	23800
MIGRO M540.....	136	21.1	87	23400
PIONEER 3376 (X1002).....	175	21.3	96	23900
PIONEER 3306.....	155	21.4	96	23600
BO-JAC X20.....	155	21.5	94	23900
PIONEER 3206.....	142	21.6	92	23800
BO-JAC X2.....	154	21.9	92	23300
BEAR UNICORN X410.....	150	22.0	91	24000
MIGRO M44SX.....	151	22.1	95	24000
SUPER-CROST S-75.....	134	22.1	92	23200
WHISNAND 874.....	155	22.4	87	24000
POCKLINGTON P-742.....	137	22.4	88	24000
PIONEER 3300.....	159	22.5	92	23600
MC ALLISTER MX-6301.....	156	22.5	94	23800
ACCO UNI-CROSS 8500.....	166	22.6	93	24000
PIONEER X1319.....	150	22.7	95	24000
SUPER-CROST S-69.....	159	22.9	93	23600
NULL N-105.....	143	23.0	90	23700
MC ALLISTER SX6883.....	162	23.4	91	23700
MC ALLISTER SX6827.....	167	24.3	90	23700
AV. OF ALL ENTRIES 1968-1969..	148	21.5	91	23764
L.S.D.....	17	1.0	5	N.S.

Table 6. — East North-Central Illinois: Elwood,
Increased Planting Rate*
(Planted at 24,000 plants per acre in 30-inch rows)

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
GUTWEIN 20.....	122	22.5	94	22800
BO-JAC X2E.....	125	22.8	93	23700
MC ALLISTER SX66.....	126	24.0	93	24000
ACCO UNI-CROSS 5200.....	115	26.1	88	23800
VAN HORN CAP 43.....	133	26.3	82	23400
SUPER-CROST S-75.....	123	27.3	94	23500
PIONEER 3304.....	127	28.1	90	23800
PIONEER 3306.....	110	28.1	95	23800
PIONEER 3376 (X1002).....	126	28.4	92	24000
AV. OF ALL ENTRIES 1967-1969..	114	26.3	89	23694
L.S.D.....	12	1.5	6	880
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
BO-JAC X2E.....	127	20.8	93	23500
GUTWEIN 20.....	119	20.8	94	22200
BO-JAC X22EL.....	125	21.0	92	23800
PIONEER 3567.....	125	21.3	92	23600
BLANEY B-601.....	122	21.4	94	23500
MC ALLISTER SX66.....	129	21.6	92	24000
BLANEY DOUBLE A.....	122	22.0	91	24000
MOEWS 6391.....	123	22.9	89	23900
SUPER-CROST 593.....	135	23.2	91	23400
FREY F60.....	114	23.5	84	23600
PIONEER X4192.....	135	23.7	95	23200
VAN HORN CAP 43.....	132	23.7	84	23200
SUPER-CROST S-69.....	131	23.8	91	24000
ACCO UNI-CROSS 5200.....	112	23.8	87	23700
PIONEER 3306.....	120	23.9	93	23700
PIONEER 3376 (X1002).....	138	24.0	93	24000
PIONEER 3365.....	120	24.0	90	24000
SUPER-CROST S-75.....	123	24.2	95	23200
PIONEER 3561.....	117	24.2	91	24000
PIONEER 3304.....	128	24.5	88	23700
PIONEER X1319.....	124	25.0	96	23800
MC ALLISTER MX-6301.....	129	25.3	92	24000
BEAR UNICORN X8323.....	122	25.3	89	23900
MC ALLISTER SX6883.....	114	25.6	88	24000
AINSWORTH 7387.....	113	25.6	83	23600
AV. OF ALL ENTRIES 1968-1969..	116	23.5	90	23590
L.S.D.....	18	1.1	7	N.S.

* 1967 and 1968 trials conducted at Ashkum.

Table 7. West-Central Illinois: Augusta
(Planted at 18,000 plants per acre in 40-inch rows)

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
DITTMER D803.....	126	21.9	95	17700
PIONEER 3220.....	127	22.7	94	18000
AINSWORTH X-9.....	135	22.8	96	17900
BO-JAC X9.....	130	23.2	94	18000
MC ALLISTER SX6509.....	129	23.6	89	17500
PIONEER X1319.....	129	23.6	97	16900
ACCO UNI-CROSS 8500.....	127	23.7	94	17700
PIONFER 3376 (X1002).....	137	23.8	96	18000
PIONEER 310.....	126	23.8	89	18000
PIONEER 3306.....	128	23.9	93	17800
ACCO 815.....	123	24.1	89	17900
PIONEER 3307.....	126	24.9	95	18000
AV. OF ALL ENTRIES 1967-1969..	123	23.6	93	17796
L.S.D.....	N.S.	0.8	5	N.S.
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
PIONEER 3505.....	123	21.3	86	18000
DITTMER D803.....	122	22.1	95	17600
DITTMER D823.....	118	22.7	93	18000
LEWIS 701.....	129	22.8	94	18000
PIONEER X4192.....	113	23.1	99	17400
PIONEER 3220.....	117	23.2	92	18000
AINSWORTH X-9.....	133	23.3	95	17900
ACCO UNI-CROSS 8500.....	120	23.5	94	18000
PIONEER X1319.....	124	23.8	97	18000
PIONEER 310.....	121	23.8	92	18000
AINSWORTH 6507.....	127	23.9	93	18000
MC ALLISTER SX6509.....	124	23.9	88	18000
AINSWORTH 4487.....	126	24.1	91	18000
PIONEER 3306.....	117	24.1	92	17700
BO-JAC X9.....	126	24.2	93	18000
MOEWS SUPR MAIZ 738.....	126	24.3	88	18000
ACCO 815.....	120	24.6	87	17900
MC ALLISTER SX6827.....	124	24.7	93	18000
PIONEER 3376 (X1002).....	133	24.8	97	18000
PIONEER 3307.....	122	25.2	95	18000
BO-JAC X7L (X77L).....	124	25.9	95	18000
MOEWS 8281.....	137	26.6	89	18000
AV. OF ALL ENTRIES 1968-1969..	121	24.1	92	17910
L.S.D.....	N.S.	1.1	5	N.S.

Table 8. — Central Illinois: Stanford, Increased Planting Rate
(Planted at 24,000 plants per acre in 30-inch rows)

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
MOEWS SUPR MAIZ 327.....	149	20.1	82	24000
MOEWS SUPR MAIZ 337.....	136	21.2	79	23500
STEWART S-337.....	143	21.4	83	23500
MC ALLISTER SX66.....	156	21.5	87	24000
PIONEER 3376 (X1002).....	167	21.9	90	23300
HOBLIT XR-336.....	158	22.3	90	23200
BO-JAC X20.....	148	22.3	82	23500
MOEWS SUPR MAIZ 44.....	151	22.9	87	23900
VAN HORN CAP 43.....	151	22.9	69	23800
ACCO UNI-CROSS 8500.....	149	22.9	80	23800
WHISNAND 874.....	149	23.0	68	23300
BO-JAC X707.....	145	23.1	78	23600
PIONEER 3306.....	135	23.3	82	23500
ASGRDW IXL9 (5S570).....	152	24.9	68	23700
AV. OF ALL ENTRIES 1967-1969..	141	22.9	78	23573
L.S.D.....	21	0.9	N.S.	N.S.
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
MOEWS SUPR MAIZ 327.....	150	18.1	86	24000
MC ALLISTER SX66.....	162	19.2	95	23900
STEWART S-337.....	151	19.6	91	23300
ACCO UNI-CROSS 5200.....	151	20.0	94	22800
MOEWS SUPR MAIZ 337.....	148	20.1	95	23200
BO-JAC X20.....	152	20.2	90	23300
BO-JAC X30.....	144	20.2	94	23500
PIONEER 3376 (X1002).....	174	20.4	92	23000
VAN HORN CAP 43.....	162	20.5	82	23700
VAN HORN CAP 358.....	152	20.5	90	23800
HOBLIT XR-336.....	165	20.6	98	22900
STEWART SX-47.....	174	20.8	89	23800
BO-JAC X5 (X55).....	161	20.8	89	23000
WHISNAND 874.....	166	20.9	83	23000
PIONEER 3306.....	158	21.0	95	23300
MOEWS SUPR MAIZ 44.....	156	21.1	92	23900
ACCO UNI-CROSS 8500.....	163	21.2	85	23700
BO-JAC X707.....	160	21.3	91	23400
MC ALLISTER MX-6301.....	165	21.7	97	23700
PIONEER X4196.....	164	21.7	81	23200
ACCO UNI-CROSS 6000.....	156	21.7	82	23700
AINSWORTH 7387.....	145	21.8	91	23900
PIONEER 3196 (X2786).....	157	22.4	71	23100
CENTRAL ILLINOIS C.I. 40.....	172	22.7	89	23700
ASGRDW IXL9 (5S570).....	170	23.2	81	23600
PIONEER X1319.....	147	23.3	97	23400
AV. OF ALL ENTRIES 1968-1969..	154	21.1	89	23381
L.S.D.....	23	1.1	8	N.S.

Table 9. — East-Central Illinois: Urbana
(Planted at 18,000 plants per acre in 40-inch rows)

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
BEAR 876.....	141	23.9	97	17600
FARMERS UNION 007.....	132	24.8	93	17500
FREY F60.....	136	24.9	95	17900
BO-JAC X707.....	134	24.9	96	17300
WHISNAND 874.....	133	25.6	95	17800
AINSWORTH X-9.....	156	25.7	100	17700
BEAR UNICORN X6393.....	141	25.9	96	17900
HOBLIT XR-446.....	156	26.2	99	17900
PIONEER X4196.....	171	26.6	99	17700
PIONEER 3306.....	127	26.7	98	17400
BEAR UNICORN X872.....	162	27.1	99	17800
MOEWS 7371.....	143	27.1	93	17800
ASGROW IXL9 (55570).....	155	27.5	99	17700
VAN HORN CAP 43.....	147	28.6	98	18000
AV. OF ALL ENTRIES 1967-1969..	132	26.5	97	17770
L.S.D.....	12	2.0	4	N.S.
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
FARMERS UNION 007.....	133	22.7	92	17700
TRISLER T-18.....	121	22.7	95	18000
FREY F58.....	134	22.8	98	18000
TRISLER T-327.....	133	22.9	99	18000
PIONEER 3376 (X1002).....	162	23.0	100	18000
BO-JAC X707.....	136	23.3	96	17200
CENTRAL ILLINOIS C.I. 2304.....	146	23.4	97	17900
FREY F60.....	145	23.4	96	17800
AINSWORTH X-9.....	165	23.6	100	18000
PIONEER 3369A.....	164	23.6	98	18000
HOBLIT XR-446.....	152	23.7	98	17900
BEAR UNICORN X8236.....	148	23.7	92	18000
ACCO UNI-CROSS 8500.....	143	23.8	97	17800
MOEWS 7371.....	153	24.0	92	18000
BEAR UNICORN X6393.....	146	24.0	97	17900
WHISNAND 874.....	131	24.2	95	17800
PIONEER X4196.....	175	24.4	98	18000
PIONEER 3306.....	143	24.5	100	17900
MOEWS 7291.....	154	24.6	98	17900
ACCO UNI-CROSS 6000.....	144	24.6	96	18000
BEAR UNICORN X872.....	165	24.7	99	18000
POCKLINGTON P-741.....	143	24.7	98	18000
VAN HORN CAP 43.....	154	24.8	98	17900
POCKLINGTON P-715.....	143	25.0	98	17600
BEAR 876.....	140	25.0	97	17900
PIONEER 3196 (X2786).....	163	25.1	97	17600
MOEWS 7281.....	139	25.1	99	18000
POCKLINGTON P-818.....	152	25.2	97	17700
ASGROW IXL9 (55570).....	158	26.0	98	18000
TRISLER T-940.....	138	26.5	99	18000
POCKLINGTON P-892.....	137	26.5	95	17900
AV. OF ALL ENTRIES 1968-1969..	140	24.2	97	17930
L.S.D.....	16	1.5	6	400

Table 9a. — East-Central Illinois: Urbana,
Increased Planting Rate
(Planted at 24,000 plants per acre in 30-inch rows)

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
TODD M55.....	129	21.1	99	23100
LEWIS X16.....	160	22.1	99	23000
MIGRO M540.....	143	23.2	96	23300
MC ALLISTER SX66.....	149	23.4	97	22800
BEAR 671.....	140	24.0	94	23500
PIONEER X4192.....	145	24.8	99	23500
GUTWEIN 167.....	147	24.9	97	23200
PRINCETON SX-606.....	152	25.0	98	23800
ACCO UNI-CROSS 5200.....	150	25.0	98	23200
FREY FX55.....	135	25.5	95	23500
PIONEER 3376 (X1002).....	157	25.7	98	23200
WHISNAND 874.....	146	25.9	93	23300
MOEWS 7371.....	142	25.9	79	22500
BEAR UNICORN X8333.....	155	26.0	89	23000
PRINCETON SX-690.....	149	26.3	99	23100
PIONEER 3306.....	135	26.3	100	23500
MC ALLISTER SX6584.....	154	26.8	100	23100
MIGRO M44SX.....	139	27.0	98	23500
VAN HORN CAP 43.....	143	27.2	95	23300
WHISNAND 871.....	148	28.0	95	23400
AV. OF ALL ENTRIES 1967-1969..	143	25.3	97	23226
L.S.D.....	18	1.4	5	1200

Table 9a. — Urbana, Increased Planting Rate, continued

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
TODD M55.....	119	19.7	99	23600
BO-JAC X2E.....	137	20.3	97	23800
LEWIS X16.....	155	20.9	98	23900
MC ALLISTER SX66.....	142	21.3	98	23500
MIGRO M540.....	143	21.6	97	23900
GUTWEIN 167.....	146	21.8	96	23900
PRINCETON SX-606.....	155	21.9	99	24000
ACCO UNI-CROSS 5200.....	150	21.9	97	23300
VAN HORN CAP 368.....	144	22.3	92	23800
BEAR 671.....	124	22.5	92	24000
SUPER-CROST S-69.....	148	22.8	99	23900
MOEWS 7371.....	133	22.9	70	23200
PIONEER X4196.....	136	23.0	93	23900
PIONEER X4192.....	144	23.1	99	24000
SUPER-CROST 593.....	142	23.1	97	24000
SCHENK SS-X5.....	144	23.2	97	24000
SCHENK SS-77A.....	124	23.3	92	24000
WHISNAND 874.....	144	23.5	90	23600
PIONEER 3369A.....	173	23.6	97	24000
PRINCETON SX-690.....	150	23.7	99	23700
PIONEER 3306.....	135	23.7	100	23900
BEAR UNICORN X8333.....	151	23.8	87	24000
VAN HORN CAP 43.....	140	23.8	93	24000
PRINCETON SX-836.....	154	23.9	95	24000
FREY FX55.....	133	23.9	94	24000
BO-JAC X5 (X55).....	162	24.2	97	23600
PIONEER 3376 (X1002).....	153	24.2	98	24000
POCKLINGTON P-715.....	147	24.2	91	23300
AINSWORTH 7387.....	146	24.3	97	23800
POCKLINGTON P-742.....	128	24.3	93	24000
SUPER-CROST S-75.....	157	24.6	99	23900
BEAR UNICORN X8236.....	137	24.6	88	22900
MIGRO M44SX.....	135	24.7	98	23500
MC ALLISTER SX6584.....	150	25.6	99	23600
WHISNAND 871.....	148	25.6	94	24000
GUTWEIN 87A.....	160	25.7	98	23400
HOLDEN 033.....	146	25.7	99	23800
MC ALLISTER SX6883.....	142	25.7	97	23500
POCKLINGTON P-741.....	137	25.7	97	23800
POCKLINGTON P-892.....	135	25.7	86	24000
BO-JAC X7L (X77L).....	169	26.9	96	24000
PIONEER X1319.....	136	27.5	100	24000
AV. OF ALL ENTRIES 1968-1969..	142	23.4	97	23706
L.S.D.....	20	1.5	6	1000

Table 10. — West South-Central Illinois: Greenfield
(Planted at 18,000 plants per acre in 30-inch rows)*

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
VAN HORN CAP 141.....	141	19.0	85	18000
PIONEER 3306.....	146	19.3	79	18000
AINSWORTH X 9.....	143	19.4	78	18000
PIONEER 3300.....	151	20.7	87	17600
WHISNAND 851.....	144	21.3	81	17600
AV. OF ALL ENTRIES 1967-1969..	134	20.3	79	17823
L.S.D.....	N.S.	0.8	N.S.	N.S.
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
VAN HORN CAP 141.....	135	17.0	82	18000
AINSWORTH X-9.....	134	17.5	74	18000
PIONEER 3376 (X1002).....	162	17.6	87	18000
PIONEER 3306.....	151	17.6	82	18000
VAN HORN CAP 358.....	139	18.0	88	18000
PIONEER X4196.....	138	18.3	75	18000
AINSWORTH 6507.....	150	18.5	86	18000
PIONEER 3369A.....	133	18.5	80	15900
BEAR UNICORN X8333.....	144	19.2	85	18000
LEWIS 824.....	121	19.4	82	18000
PIONEER 3300.....	140	19.5	89	17400
WHISNAND 851.....	136	19.7	80	17400
POCKLINGTON P-892.....	135	20.5	76	17900
AV. OF ALL ENTRIES 1968-1969..	133	18.6	82	17734
L.S.D.....	17	1.0	14	1300

* Planted in 40-inch rows in 1967 and 1968.

Table 10a. — West South-Central Illinois: Greenfield,
Increased Planting Rate
(Planted at 24,000 plants per acre in 30-inch rows)

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
BEAR 671.....	147	18.5	69	23900
VAN HORN CAP 43.....	151	19.4	59	23700
BO-JAC X20.....	154	19.5	79	24000
MOEWS 7372.....	138	19.5	61	24000
WHISNAND 874.....	126	19.9	64	24000
PIONEER 3300.....	144	20.2	61	24000
PIONEER 310.....	134	20.5	70	24000
AV. OF ALL ENTRIES 1967-1969..	136	20.2	90	23793
L.S.D.....	15	2.1	11	N.S.
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
BEAR 671.....	133	17.0	82	23800
PIONEER 3376 (X1002).....	145	17.2	84	24000
BEAR UNICORN X4686.....	140	17.4	74	24000
VAN HORN CAP 43.....	149	17.5	68	23500
POCKLINGTON P-442.....	120	17.5	76	23100
MOEWS 7372.....	125	17.7	72	24000
BO-JAC X20.....	146	17.8	84	24000
BO-JAC X5 (X55).....	140	17.9	74	23600
WHISNAND 874.....	122	18.4	72	24000
PIONEER 3369A.....	151	18.6	87	24000
PIONEER 3300.....	132	19.1	79	24000
PIONEER 310.....	120	19.1	76	24000
POCKLINGTON P-741.....	130	19.9	81	22100
AV. OF ALL ENTRIES 1968-1969..	132	18.7	77	23640
L.S.D.....	15	N.S.	14	1800

Table 11. — Southern Illinois: Brownstown
(Planted at 18,000 plants per acre in 40-inch rows)

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT. PLANTS	PLANTS PER ACRE
=====				
SUMMARY 1967-1969				

	BU.	PERCT.	PERCT.	
PIONEER 3306.....	120	22.5	84	17800
BO-JAC X1A.....	132	23.4	80	18000
PIONEER 310.....	114	23.5	80	18000
PIONEER 3304.....	125	23.7	89	17900
PIONEER 8001 (X8001).....	135	23.8	86	18000
BEAR 876.....	117	24.0	78	18000
PIONEER 3300.....	135	24.2	86	18000
AV. OF ALL ENTRIES 1967-1969..	118	23.5	81	17849
L.S.D.....	11	1.3	N.S.	N.S.

SUMMARY 1968-1969				

	BU.	PERCT.	PERCT.	
PIONEER 3306.....	106	22.1	79	17800
VAN HORN CAP 378.....	103	22.2	78	18000
AINSWORTH 6507.....	127	22.6	82	18000
PIONEER 3376 (X1002).....	121	22.6	84	18000
PIONEER 8001 (X8001).....	126	23.0	82	18000
BO-JAC X1A.....	119	23.0	84	18000
PIONEER 3369A.....	119	23.0	76	18000
PIONEER 3304.....	114	23.5	85	17800
BEAR UNICORN X6393.....	105	23.5	81	18000
PIONEER 3300.....	124	23.6	80	18000
WHISNAND 851.....	108	23.6	86	18000
PIONEER 310.....	100	23.6	74	18000
BEAR 876.....	97	23.6	70	18000
MOEWS 7691W.....	110	24.1	63	18000
BO-JAC X7L (X77L).....	129	24.2	90	18000
POCKLINGTON P-892.....	104	24.4	69	17900
BO-JAC X7 (X77).....	117	24.5	81	17700
AV. OF ALL ENTRIES 1968-1969..	108	23.3	78	17817
L.S.D.....	12	1.2	15	N.S.

Table 11a. — Southern Illinois: Brownstown,
Increased Planting Rate
(Planted at 22,000 plants per acre in 30-inch rows)

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
MOEWS SUPR MAIZ 44.....	123	22.8	76	22000
VAN HORN CAP 540.....	117	23.1	74	22000
MOEWS 6378.....	139	23.3	82	21600
WHISNAND 851M.....	126	23.4	79	21900
PIONEER 3306.....	123	23.8	85	21900
WHISNAND 871.....	133	24.3	67	22000
PIONEER 3304.....	125	24.4	89	22000
PIONEER 8001 (X8001).....	129	24.5	75	22000
PIONEER 310.....	110	24.6	69	21900
AV. OF ALL ENTRIES 1967-1969..	120	23.6	77	21863
L.S.D.....	16	1.2	9	N.S.
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
PIONEER 3376 (X1002).....	129	21.7	86	22000
TAYLOR-EVANS CASHMAKER.....	110	22.2	77	22000
MOEWS SUPR MAIZ 44.....	109	22.4	76	22000
PIONEER 3369A.....	133	22.5	75	22000
TAYLOR-EVANS TE BONUSMAKER S.....	118	22.5	69	21900
WHISNAND 851M.....	115	22.5	74	21800
VAN HORN CAP 540.....	107	22.5	70	22000
BEAR UNICORN X4153.....	104	22.7	66	22000
MOEWS 6378.....	131	23.1	79	21400
PIONEER 3306.....	124	23.1	84	22000
BEAR UNICORN X6706.....	120	23.2	70	21400
BO-JAC X5 (X55).....	113	23.2	68	22000
PIONEER 3304.....	124	23.3	86	22000
PIONEER 8001 (X8001).....	130	23.4	69	22000
WHISNAND 871.....	123	23.4	60	22000
PIONEER 310.....	107	23.7	63	21400
BO-JAC X7L (X77L).....	129	24.2	76	22000
PIONEER X1319.....	133	25.0	92	22000
AV. OF ALL ENTRIES 1968-1969..	116	23.4	74	21900
L.S.D.....	16	1.1	13	N.S.

Table 12. — Extreme Southern Illinois Bottomland: Dixon Springs
(Planted at 18,000 plants per acre in 30-inch rows)*

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE

SUMMARY		1967-1969		

	BU.	PERCT.	PERCT.	
AINSWORTH X 9.....	150	19.7	89	18000
PIONEER 3306.....	149	19.7	92	17200
PIONEER 310.....	136	19.7	88	17500
PIONEER 8001 (X8001).....	121	20.0	82	18000
TAYLOR-EVANS E2QYA.....	141	20.9	90	17500
PIONEER 10873.....	132	21.1	87	17900
PRINCETON 920-A.....	130	21.2	84	17700
AV. OF ALL ENTRIES 1967-1969..	132	20.4	87	17559
L.S.D.....	17	1.0	12	N.S.

SUMMARY		1968-1969		

	BU.	PERCT.	PERCT.	
PIONEER 310.....	136	18.5	87	18000
MOEWS 8781W.....	155	18.8	83	17400
BURGDORFS B-837Y.....	125	18.8	90	18000
PIONEER 3306.....	153	19.0	90	16800
PIONEER 3376 (X1002).....	132	19.1	88	16300
BEAR UNICORN X6393.....	133	19.2	91	18000
BO-JAC X7L (X77L).....	130	19.4	85	17400
WHISNAND 851.....	127	19.4	85	17300
PIONEER 8001 (X8001).....	120	19.4	73	17900
PIONEER 3369A.....	140	19.7	90	17200
PRINCETON 990-B.....	126	19.7	76	17800
AINSWORTH X 9.....	148	19.8	87	18000
PRINCETON 920-A.....	131	19.9	83	18000
TAYLOR-EVANS E20YA.....	148	20.4	89	18000
PIONEER 10873.....	122	20.5	84	18000
AV. OF ALL ENTRIES 1968-1969..	132	19.4	88	17486
L.S.D.....	25	2.5	14	1100

* Planted in 40-inch rows in 1967 and 1968.

Table 12a. — Extreme Southern Illinois Bottomland:
Dixon Springs, Increased Planting Rate
(Planted at 24,000 plants per acre in 30-inch rows)*

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967, 1969				
	BU.	PERCT.	PERCT.	
WHISNAND 874.....	147	17.7	74	22300
TAYLOR-EVANS TE BONUSMAKER S.....	121	17.7	81	22700
PIONEER 3306.....	151	17.8	90	23300
BEAR 871.....	158	18.0	75	22700
WHISNAND 871.....	139	18.4	78	24000
SCHENK SS-77A.....	132	18.6	81	23000
PRINCETON SX-809.....	151	18.7	82	23100
BURGDORFS B-84SX.....	138	18.8	82	23000
PIONEER 310.....	154	19.0	93	23300
SCHENK S-73A.....	137	19.0	83	23200
BEAR 876.....	145	19.8	79	22800
PIONEER 10873.....	156	20.9	76	23900
AV. OF ALL ENTRIES 1967, 1969..	143	19.6	84	23095
L.S.D.....	31	1.2	13	N.S.

* Trial discarded in 1968 because of flooding.

Table 13. — Extreme Southern Illinois Upland: Carbondale
(Planted at 18,000 plants per acre in 30-inch rows)*

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
AINSWORTH X-9.....	87	19.5	71	16900
PIONEER 8001 (X8001).....	88	20.2	82	17000
PIONEER X2473.....	81	20.2	90	17300
BEAR UNICORN X8333.....	88	20.6	64	17900
BEAR UNICORN X6716.....	86	21.1	73	18000
PIONEER 321.....	77	21.2	77	16000
PIONEER 10873.....	80	22.3	75	17400
PIONEER 309B.....	80	24.5	79	15100
AV. OF ALL ENTRIES 1967-1969..	79	21.4	74	16843
L.S.D.....	N.S.	1.4	12	1000
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
PIONEER 3376 (X1002).....	65	18.4	71	18000
AINSWORTH X-9.....	62	18.9	58	16700
PIONEER X2473.....	53	18.9	87	17000
BEAR UNICORN X6135.....	59	19.0	43	18000
PIONEER 8001 (X8001).....	63	19.1	77	16600
PIONEER 3369A.....	70	19.6	66	18000
BEAR UNICORN X8333.....	60	19.6	52	18000
ACCO 956.....	72	20.4	77	15500
BEAR UNICORN X6716.....	59	20.5	65	18000
PIONEER 321.....	49	20.8	67	15000
POCKLINGTON P-892.....	55	21.2	71	18300
BEAR UNICORN X8236.....	65	21.3	60	18000
MOEWS 8283.....	68	21.4	65	18000
PIONEER 10873.....	50	21.6	68	17400
WHISNAND 851.....	63	22.1	67	16100
MOEWS 7281.....	62	22.7	64	17000
PIONEER 309B.....	58	23.2	73	14300
AV. OF ALL ENTRIES 1968-1969..	59	20.4	66	16678
L.S.D.....	N.S.	2.2	19	1400

* Planted in 40-inch rows in 1967 and 1968.

Table 13a. — Extreme Southern Illinois Upland: Carbondale,
Increased Planting Rate
(Planted at 22,000 plants per acre in 30-inch rows)

ENTRY	TOTAL ACRE YIELD	GRAIN MOISTURE	ERECT PLANTS	PLANTS PER ACRE
SUMMARY 1967-1969				
	BU.	PERCT.	PERCT.	
MOEWS 7372.....	95	19.7	69	21600
PRINCETON SX-803.....	87	20.1	90	18700
WHISNAND 874.....	94	20.2	72	22000
PIONEER 310.....	89	20.7	84	20500
TAYLOR-EVANS TE BONUSMAKER S.....	81	20.8	78	21000
PRINCETON SX-690.....	80	20.8	79	21000
WHISNAND 871.....	92	20.9	74	21500
PIONEER 3306.....	86	21.0	87	20900
PIONEER 10873.....	89	21.2	67	22000
PIONEER 8001 (X8001).....	87	21.2	78	21500
PIONEER 3196 (X2786).....	83	21.3	70	21900
PIONEER 3098.....	85	22.0	86	20400
PIONEER X2473.....	92	23.0	91	21000
AV. OF ALL ENTRIES 1967-1969..	85	20.7	77	21042
L.S.D.....	N.S.	2.1	11	1200
SUMMARY 1968-1969				
	BU.	PERCT.	PERCT.	
MOEWS 7372.....	77	19.2	56	21500
PRINCETON SX-803.....	72	19.3	86	20000
WHISNAND 874.....	69	19.3	64	22000
TAYLOR-EVANS CASHMAKER.....	70	19.5	64	19200
PRINCETON SX-836.....	62	19.7	77	21500
PRINCETON SX-690.....	59	19.7	72	21300
PIONEER 3376 (X1002).....	53	19.7	74	22000
PIONEER 3369A.....	72	19.8	66	21100
WHISNAND 871.....	71	19.9	72	21300
PIONEER 310.....	71	20.0	82	19900
PIONEER 10873.....	68	20.0	63	22000
PIONEER 3306.....	67	20.2	84	21800
PIONEER 3098.....	65	20.3	83	21600
TAYLOR-EVANS TE BONUSMAKER S.....	77	20.6	76	20900
PIONEER 8001 (X8001).....	62	20.7	73	21400
PIONEER 3196 (X2786).....	61	21.0	58	21800
PIONEER X2473.....	76	23.1	90	20500
AV. OF ALL ENTRIES 1968-1969..	62	20.2	72	21097
L.S.D.....	N.S.	N.S.	16	1800